

Begin

REEL # 254

Kotlyar, I.P.

SIDOROV, A.N.; KOTLYAR, I.P.

Infrared spectra of phthalocyanines. Part 1. Effect of the crystalline structure and of the central atom of a metal on a phthalocyanine molecule in the solid state. Opt. i spektr. ll no.2:175-184 Ag '61. (MIRA 14:8)

(Infrared rays)

(Phthalocyanine--Spectra)

L 5422-66

ACCESSION NR: AP5019774

UR/0051/65/019/002/0310/0311  
535.853.24-15

AUTHOR: Dmitriyevskiy, O. D.; Kotlyar, I. P.

TITLE: An ultrafast infrared spectrometer 10

SOURCE: Optika i spektroskopiya, v. 19, no. 2, 1965, 310-311

TOPIC TAGS: IR spectrometer, IR radiation, radiation detector, monochromator

ABSTRACT: The authors point out first that development of fast infrared spectrometers was hampered in the past by the lack of inertialess detectors. In view of the recent availability of a number of quick-response detectors with time constants  $10^{-6}$ -- $10^{-8}$  sec for a very broad portion of the spectrum, they constructed a model of an ultrafast spectrometer of original design (Inventor's Certificate No. 625090/26, 13 April 1959, issued to O. D. Dmitriyevskiy), with three counterrotating mirrors to scan the spectrum. The optical diagram of the monochromator used is shown in Fig. 1 of the Enclosure. The spectrum scanning time in such a monochromator is 5 times less than in a similar monochromator with a single mirror. A quick-response detector is used. With the mirrors rotating at ~3000 rpm, a 1--5  $\mu$  interval of the spectrum can be registered in 40  $\mu$ sec. A sample spectrum is shown. The spectrometer was used to obtain a series of measurements of triplet-triplet absorption in dilute dye solutions subjected to pulsed photoexcitation.

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L 5422-66

ACCESSION NR: AP5019774

"The authors thank A. N. Tarenin for continuous interest." Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 10 May 65

ENCL: 01

SUB CODE: OP

NR REF SCV: 006

OTHER: 002

Card 2/3

**L 5422-66**

ACCESSION NR: AP5019774

ENCLOSURE: 01 0

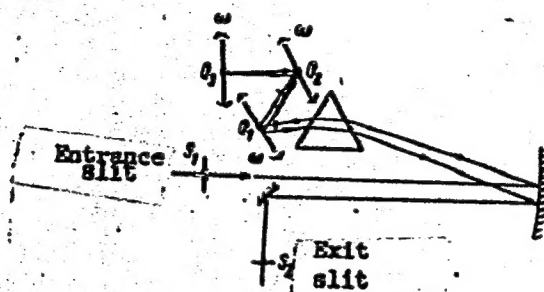


Fig. 1. Schematic optical diagram of the spectrometer

Card 3/3

KOTLYAR, I. V.

"Treatment of Patients of Chronic Arthritis of Various Origin by Means  
of Inductive Thermo-electrophoresis"

report submitted at the Republic Session on Traumatology and Orthopedics,  
Kishinev, 9-10 January, 1961

So: Zhnavookhranenie, Kishinev, No. 2, March-April 1961, pages 61-64



KOTLYAR, I. V.

USSR/Engineering - Turbines

Card 1/1 : Pub. 128 - 5/38

Authors : Kotlyar, I. V.

Title : ~~Contribution to the problem of determining the throughput through a series of turbine stages~~

Periodical : Vest. mash. 9, 25-27, Sep 1954

Abstract : The author claims that the customary formula for the variation of throughput with input temperature and pressure, based on dimensional similarity, yields excessive errors in a group of few stages when the pressure drop through the stages is large. An alternating formula based on simultaneous solution of the continuity and energy equations can be made practical by the introduction of a throughput parameter given in a set of graphs. Four references: 3 USSR; 1 German (1924-1948). Table; graphs.

Institution : .....

Submitted : .....



KOTLYAR, I. V.

"Questions on the Operation of Gas Turbine Installations Under Variable Conditions." Cand Tech Sci, Khar'kov Polytechnic Inst ineni V. I. Lenin, Min Higher Education USSR, Khar'kov, 1955. (KL, No 13, Mar 55)

SO: Sum. No. 670, 29 Sep 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

KOTLYAR, I.V.

AID P - 2063

Subject : USSR/Electricity

Card 1/1 Pub. 26 - 5/29

Author : Kotlyar, I. V., Eng.

Title : ~~Approximate method of determining the steam characteristics of a turbine~~  
Approximate method of determining the steam characteristics of a turbine

Periodical : Elek. sta., 4, 20-23, Ap 1955

Abstract : A mathematical analysis for determining the steam characteristics for a turbine of given design and dimensions is presented. The calculations cover the design of impulse turbines and determines pressures acting on their blades and developed in various turbine stages. The article contains also some data on reactive turbines. Three diagrams.

Institution: None

Submitted : No date

8(6), 14(6)

SO7/112-59-1-6592

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, No 4, p 29 (USSR)

AUTHOR: Shmee, Ya. I., and Kotlyar, I. V.

TITLE: On the Selection of an Efficient Layout for a Locomotive Gas-Turbine Plant

PERIODICAL: Tr. Khar'kovsk. politekh. in-ta, 1957, Vol 24, pp 169-180

ABSTRACT: Thermal economy of a gas-turbine locomotive is still considerably behind that of a diesel-electric locomotive; for this reason, selection of the most rational scheme for a gas-turbine plant is the most important objective. An analysis of a gas-turbine plant includes these two problems: (1) investigating individual components; (2) effect of their places in the layout. The influence of a number of stages upon internal turbine efficiency is demonstrated in the article. The influence of the number of stages upon the overall efficiency for single-shaft and two-shaft schemes with optimum pressure is determined. The two-shaft unit with a small number of stages

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SOV/112-59-4-6592

On the Selection of an Efficient Layout for a Locomotive Gas-Turbine Plant  
proves to be more economical than a multistage single-shaft unit (only schemes without intermediate cooling are considered). A comparison of thermal economy of schemes having different degrees of regeneration under partial loads is submitted. The thermal economy of a unit can be raised by using a two-shaft compressor with higher compression. At moderate compressions, a two-shaft single-compressor scheme with an adjustable-blade turbine is the most economical.

V.S.P.

Card 2/2

8(6), 14(6)

SOV/112-59-4-6537

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 29 (USSR)

AUTHOR: Kotlyar, I. V.

TITLE: New Thermal Diagram for Designing Gas Turbines

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1957, Vol 24, pp 199-205

ABSTRACT: The diagram suggested in the article is constructed in the  $tH$  coordinates and can be used for a gas mixture of any composition. A net of curves in the diagram presents the dependence of the adiabatic drop  $H$  on the higher (or lower) temperature of the process with a constant specified pressure ratio. Specific gas volumes and final temperatures are determined analytically. Principles underlying the diagram are described, and an example of using it is cited. The accuracy of thermal calculation provided by the new diagram is much higher than that possible with existing diagrams.

V.S.P.

Card 1/1

AUTHORS: Kotlyar, I.V. and Shnee, Ya.I. <sup>SOV/24-58-4-10/39</sup> (Khar'kov)

TITLE: The Choice of a Rational Scheme for a Marine Gas Turbine Installation of Large Power, Capable of Operating at All Regimes (Vybór ratsional'noy skhemy vserezhimnoy korabel'noy gazoturbinnoy ustanovki bol'shoi moshchnosti)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 4, pp 73 - 77 (USSR)

ABSTRACT: The characteristic feature of the gas turbine is its high specific fuel consumption. Hence for high powers, it is convenient to have the installation in the form of a single unit guaranteeing both small specific fuel consumption and a high efficiency over a wide range of loads. The requirement of a reduction in specific fuel consumption is also important from the point of view of the necessity of reducing the weight of the installation in every way possible. This is illustrated by the consideration of two geometrically similar installations with the same gas parameters, local velocities, stresses and efficiency.

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SOV/24-58-4-10/39  
The Choice of a Rational Scheme for a Marine Gas Turbine  
Installation of Large Power, Capable of Operating at All Regimes

Several rational schemes for gas turbines are considered, each of which has one or two stages and is a direct flow unit where possible. From an analysis of the curves of comparison, a scheme involving secondary heating of the gas is seen to be the best.

There are 7 figures and 3 Soviet references.

SUBMITTED: April 8, 1957

Card 2/2



32019

S/587/60/029/002/007/008  
D203/D302

26.2120

AUTHOR: Kotlyar, I. V.

TITLE: On the specific weight of a gas turbine installation

SOURCE: Khar'kov. Politekhnikheskiy institut. Trudy. v. 29,  
no. 2. Parovyye i gazovyye turbiny, 195-198

TEXT: It is often required to know the change in the specific weight which would result from the redesign of the unit for a different power. This is particularly important in the case of transport engines. Increased power of large steam turbines is achieved by increasing the size of their low pressure stages and the length of the blades is the only change in the high pressure parts. The external dimensions do not change materially and the specific weight is reduced. The economy in the specific weight is even greater for small steam turbines, in which the power is increased solely by increasing the blade length. The situation is different in the case of gas turbines whose capacity is limited by the strength of the first stages and all stages are highly stressed. This is

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On the specific weight ...

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D203/D302

due to the high temperature at inlet and a relatively low ratio of specific volumes of gas. In the geometrical scaling of a turbine with optimum (for its size) characteristics, the laws of similarity can be used. If the gas conditions are the same and the effects of Reynolds number can be neglected, the stresses and the efficiency will be identical. If the model turbine has minimum weight, the weight of the scaled turbine will also be a minimum. In changing the power from  $N_0$  to  $N$  the scale factor is 1. The peripheral velocities will be the same and the ratio of speeds will be

$$\frac{n}{n_0} = \left( \frac{N_0}{N} \right)^{\frac{1}{2}} \quad (3)$$

The specific weight is given by

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On the specific weight ...

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D203/D302

$$\frac{q}{q_0} = \frac{QN_0}{Q_0N} = \left( \frac{N}{N_0} \right)^{\frac{1}{2}} \quad (5)$$

However, this does not apply to turbines of low power. Sometimes the specific weight of a large turbine can be reduced by 10 to 20% by adding one stage of compression and combustion. The change of specific weight should not be described by a strictly mathematical formula. This article is merely an attempt to show the tendency of the specific weight to increase with the turbine power. There are 3 Soviet-bloc references. ✓

Card 3/3

KOTLYAR, I.V.

Galvanic inductotherapy as a new method in physical therapy. Zdravo-  
okhranenie 2 no.1:58-60 Ja-F '59 MIRA 12:7)

1. Iz fizioterapevticheskogo otdeleniya Respublikanskoy klinicheskoy  
bol'nitsy (glavnyy vrach - Yu.B. Kasperskiy)  
(ELECTROTHERAPEUTICS)

84920

26.2120

S/096/60/000/011/004/018

E194/E184

AUTHOR: Kotlyar, I.V. (Candidate of Technical Sciences)

TITLE: The Influence of Atmospheric Air Conditions on the  
Operation of a Gas Turbine Set

PERIODICAL: Teploenergetika, 1960, No 11, pp 41-45

TEXT: Reduction of the ambient air temperature can increase the efficiency and output of a gas turbine; pressure changes are less important in practice unless the turbine operates at very high altitudes. The influence of air temperature change on the operation of a gas turbine depends on whether the speed of the power turbine is independent of the compressor speed or not. If the main turbine is separate from the compressor the influence of air temperature changes depends very little on the type of load driven, whilst when both turbine and compressor are on the same shaft the influence of air temperature depends on whether the load is taken at constant speed or whether the speed changes with load according to some law. Complex parameters of similarity are given for a gas turbine in which the power turbine is independent of the compressor, and these are used to construct universal characteristics plotted in Fig 2, for the two-shaft single

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S/096/60/000/011/004/018

E194/E184

The Influence of Atmospheric Air Conditions on the Operation of a Gas Turbine Set

compressor circuit with low pressure power turbine corresponding to the circuit of Fig 1.1. The gas turbine characteristics shown in Fig 2 may be used for any atmospheric air conditions. If there is intermediate cooling or heating the equation of similarity can only give an approximate solution, but the procedure required to obtain an accurate solution is explained. It follows from the conditions of similarity that for a gas turbine with independent power turbine increase in the air temperature should also increase the gas temperature, other things being equal. Graphs showing changes in gas temperature, efficiency and speed as function of air temperature are plotted in Fig 3, from which it will be seen that with a given load the efficiency varies little with the atmospheric air temperature. However, in practice, it is usually necessary to limit the gas temperature to its value at rated load. For the circuit of Fig 1.1, if the air temperature is reduced from 15 to -25 °C and the rated gas temperature of 750 °C is maintained the output increases by a factor of 1.4 whilst the efficiency rises from 20.4 to 22.9%. On the other hand, if the air

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S/096/60/000/011/004/018  
E194/E184

The Influence of Atmospheric Air Conditions on the Operation of a Gas Turbine Set

temperature is raised to +35 °C maintaining the gas temperature constant, the power is reduced to 0.8 of the rated value and the efficiency to 18.7%. The influence of having reduced gas temperature at partial load is then considered and it is shown to be advantageous if considerable variations in air temperature are likely. The case when the power turbine and compressor are on the same shaft is then considered. In this case universal characteristics such as are shown in Fig 2 cannot be constructed because any change in the shaft speeds alters the equilibrium parameters of the set. As the air temperature is changed the constant speed lines on the compressor characteristics are displaced which alters the gas temperature and all other parameters. The case is then considered of a turbine of this type driving a constant speed alternator. It is shown that in addition to the change in gas temperature which is approximately proportional to the change in air temperature there is an additional change in gas temperature corresponding to the alteration in compressor characteristics with the new air temperature. Values of this additional change are

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The Influence of Atmospheric Air Conditions on the Operation of a Gas Turbine Set

given. Fig 4 shows characteristics for the circuits of Figs 1.3, 1.4 and 1.5, for various values of air temperature. These curves show that when the turbine and compressor are on the same shaft the relative change in gas temperature for a given load is much greater than the relative change in air temperature, so that efficiency rises with the air temperature and vice versa. Over-heating of the turbine in hot weather may be prevented by limiting the load and additional load can be taken in cold weather unless other factors prevent this. The disadvantages in certain cases of having only slight decrease in gas temperature at partial loading are discussed. Marked changes in gas temperature with the change in air temperature for a given load may be avoided in several ways; for example, by by-passing gas or air, by altering the turbine nozzle arrangements or by having variable guide vanes on the compressor intake. If such guide vanes can be used the advantages of having relatively little change of gas temperature at partial loads are considerable. In the case of turbines for which the gas temperature change at partial load is considerable, the use of

X

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S/096/60/000/011/004/018

E194/E184

The Influence of Atmospheric Air Conditions on the Operation of a Gas Turbine Set

compressor guide vanes gives relatively little advantage. Figs 5 and 6 show graphs of the operating lines of compressors of circuits Figs 1.3 and 1.4 with various air temperatures. It will be seen from Fig 6 that as the air temperature is increased the working line of the low pressure compressor of circuit 1.4 is of an unfavourable shape, which can be overcome by using variable guide vanes at the compressor inlet. If the turbine with compressor on the same shaft alters in speed with the load, the effect of air temperature at rated load is the same as before because, of course, the full load speed is constant. However, the effect of air temperature at partial loads depends on the relationships between power and speed. On the basis of considerations of this kind it is often possible to construct approximate characteristics of such turbines with change in air temperature. If gas reheat is used as the air temperature changes there is a change in the temperature ratio at the inlet to the combustion chamber and if the ratio of fuel consumption between



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S/096/60/000/011/004/018  
E194/E184

The Influence of Atmospheric Air Conditions on the Operation of a Gas Turbine Set

chambers is not controlled as function of the air temperature, there is also a change in the temperature ratio beyond the combustion chambers. This must be carefully checked in each particular case.

There are 6 figures and 6 Soviet references.

ASSOCIATION: Khar'kovskiy politekhnicheskii institut  
(Khar'kov Polytechnical Institute)

Card 6/6

KOTLYAR, I.V.

Galvanoinductothermy and mud inductothermy. Vop. kur., fizioter.  
i lech. fiz. kul't. 25 no.2:176-177 Mskop '60. (MIRA 13:9)

1: Iz respublikanskoy klinicheskoy bol'nitsy Moldavskoy SSR  
(glavnyy vrach Yu.B. Kasperskiy).  
(ELECTROTHERAPEUTICS) (BATHS, MOOR AND MUD)

KOTLYAR, I.V.

Specific weight of gas turbine units. Trudy NII 29 no.2:195-  
198 '60.

(MIRA 14:10)

(Gas turbines)

KOPLYAR, Iosif Vaniaminovich; SHNEE, Ya.I., prof., doktor tekhn.nauk, red.;  
PANSHIN, B.M., inzh., retsenezent; ONISHCHENKO, N.P., red.;  
GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[Variable operation of gas turbine systems] Peremennyyi rezhim  
raboty gazoturbinnnykh ustanovok. Pod red. IA.I.Shnee. Moskva, Gos.  
izd-vo mashinostroit.lit-ry, 1961. 226 p. (MIRA 14:4)  
(Gas turbines)

KOTLYAR, Iosif Veniaminovich; ARONOV, I.Z., kand. tekhn. nauk, retsenzent; SHNEE, Ya.I., doktor tekhn. nauk, prof., red.; NIKIFOROVA, R.A., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Heat diagram for air and combustion products] Teplovaia diagramma dlia vozdukha i produktov sgoraniia. Izd.2., perer. Pod red. IA.I.Shnee. Moskva, Mashgiz, 1963. 12 p.  
(MIRA 16:10)

(Heat—Tables)



KOTLYAR, I.V. (Kishinev, ul. Pirogova, d.31,kv.3)

Inductophoresis therapy in diseases and injuries of the locomotor apparatus. Ortop., travm. i protez. 24 no.3: 57-60 Mr '63. (MIRA 17:2)

1. Iz kafedry obshchey khirurgii (zav. - prof. N.L. Gladyshevskiy) Kishinevskogo meditsinskogo instituta i fizioterapevticheskogo otdeleniya (zav. - I.V. Kotlyar) Respublikanskoy klinicheskoy bol'nitsy Moldavskoy SSR.

KOTLYAR, I.V.; GERMANOV, P.N.

Use of inductotherapy combined with other physical factors. Sbor.  
nauch. rab. vrach. san.-kur. uchr. profsoyuzov no.1:198-201 '64.  
(MIRA 18:10)

1. Moldavskiy respublikanskiy sovet po upravleniyu kurortami  
professional'nykh soyuzov.

KOTLYAR, I.V., kand. tekhn. nauk; SELIN, V.V., inzh.

Study of the characteristics of the transient modes in gas turbine systems. Toplenergetika 11 no.6:70-75 Je '64. (MIRA 18:7)

1. Kaliningradskiy tekhnicheskoy institut rybnoy promyshlennosti i khozyaystva.

KOTLYAR, I.V., kand. tekhn. nauk

Approximate method for determining the accelerating capability of  
gas turbine systems. Teploenergetika 11 no.9:73-75 S '64.  
(MIRA 18:8)

1. Kaliningradskiy tekhnicheskoy institut rybnoy promyshlennosti  
i khozyaystva.

L 27666-67 INT(1)/INT(2)/INT(3)/INT(4)/INT(5)-2/INT(6)/INT(7)

ACCESSION NR: APL003582

S/O 14/65/000/001/0024/0028

AUTHOR: Kotlyar, I. V. (Candidate of technical sciences, Docent)

TITLE: Approximation method for calculating flow characteristics of a turbine

SOURCE: Energomashinostroyeniye, no. 1, 1965, 24-28

TOPIC TAGS: gas turbine; steam turbine; turbine flow

ABSTRACT: A method based on some experimental data presents the flow equation in this form:  $G = G_1 G_2 G_3$ , where the three components represent variations of flow depending on the inlet and outlet parameters, on the rpm in the single stage, and on the utilization of the increased outlet speed of a preceding stage with the off-rating rpm (in the multistage turbine). In the general case, when both the initial parameters and the pressure ratio vary, the flow equation is given by:  $\frac{G}{G_1} = \frac{P_1}{P_2} \sqrt{\frac{T_1}{T_2}}$ . Auxiliary curves for both active and reactive stages

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L 37666-65

ACCESSION NR: AP5-582

help in the solution of this equation. Formulas and curves are developed for determining the flow variation depending on rpm. The method is based on the widely-held assumption that the rpm speed has the same effect on the flow in the various stages that have equal reaction-blading. Orig. art. has: 5 figures and 25 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENGL: 00

SUB CODE: PR

NO REF SOV: 005

OTHER: 001

Card 2/2

KOTLYAR, I.V., kand. tekhn. nauk, dotsent; SELIN, V.V., inzh.

Dynamic characteristics of different gas turbine systems  
during sudden disturbances in fuel and load. Izv. vys. ucheb.  
zav.; energ. 8 no.7:58-65 J1 '65. (MIRA 18:9)

1. Kaliningradskiy tekhnicheskoy institut rybnoy promyshlennosti  
i khozyaystva. Predstavleno kafedroy sudovykh silovykh ustanovok.



ACC NR: AT7003566

(N)

SOURCE CODE: UR/3240/66/000/001/0088/0096

AUTHORS: Kotlyar, I. V.; Yermol'chik, V. H.

ORG: Kaliningrad Technical Institute for the Fish Industry and Management  
(Kaliningradskiy tekhnicheskoy institut rybnoy promyshlennosti i khozyaystva)

TITLE: On intrinsic stability calculations for gas turbine installations

SOURCE: Kharkov. Politeknicheskoy institut. Energeticheskoye mashinostroyeniye, no. 1, 1966. Teploobmen i gazodinamika (Heat transfer and gas dynamics), 88-96

TOPIC TAGS: gas turbine, gas compressor, combustion chamber, stability criterion, vibration

ABSTRACT: The intrinsic stability of a gas turbine installation which consists of three turbines, two compressors, and two combustion chambers is analyzed. Without considering a regenerator, the study leads to 28 linearized equations that describe the free vibrations of the gas turbine installation. The stability criterion is defined by the quantity  $Y_j$ , given by

$$Y_j = \frac{\Delta \bar{M}_j}{\Delta \bar{M}_j} - R_j \frac{\Delta \bar{M}_j}{\Delta \bar{M}_j}$$

where

$$R_j = \frac{I_j \omega_j^2}{2 \bar{M}_j}$$

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ACC NR: AT7003566

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000825410001-0  
is the rotor time,  $I_j$  is the moment of inertia, and  $\Delta \bar{M}_j$  is the excess moment generated on the j-th shaft. Two extreme values are obtained for the stability criterion, one for each compressor shaft. These are:

$$1) Y_{12} = A_1 \text{ at } R_1 \rightarrow \infty (\Delta \bar{M}_1 \rightarrow 0)$$

$$2) Y_{12} = A_1 - \frac{E_1 E_2}{A_1} \text{ at } R_1 \rightarrow 0 (\Delta \bar{M}_1 \rightarrow 0)$$

and

$$3) Y_{22} = A_2 \text{ at } R_2 \rightarrow \infty (\Delta \bar{M}_2 \rightarrow 0)$$

$$4) Y_{22} = A_2 - \frac{E_1 E_2}{A_1} \text{ at } R_2 \rightarrow 0 (\Delta \bar{M}_2 \rightarrow 0)$$

A specific example is selected and the coefficients in the above 28 equations are evaluated. The results are then given in tabular form. Orig. art. has: 39 equations, 1 figure, and 1 table.

SUB CODE: 21, 20/ SUBM DATE: none/ ORIG REF: 001

Card 2/2

Kotlyar, Kh. R.

USSR / Farm Animals. Domestic Fowl.

Q

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40529.

Author : Kotlyar Kh. R.

Inst : Not given.

Title : Hydrolyzed Yeast as Protein Feed for Poultry.

Orig Pub: Ptitsevodstvo, 1957, No 7, 34-35.

Abstract: An experiment was conducted on two groups of chicks 5 days old (45 in each group). The 1st group was a control one. The rations of the 2nd group, an experimental one, were supplemented by the hydrolyzed yeast obtained from the waste of wood pulp and of agricultural raw materials. At one month, the live weight of the experimental chickens was 9% higher than that of the controls. In the blood of the ex-

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Abs Jour: Ref Zhur-Biol., No 9, 1958, 40529.

Abstract: perimental chickens, there was 48.6% of Hb, as against 43.4% in the controls. The heart,

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liver and stomach of the experimental chickens.

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KOTLYAR, Iosif Yakovlevich; KHOR'KOV, A.I., red.; MITROFANOV, I.A.,  
nauchn. red.; RUSAKOVA, L.Ya., ved. red.; YASHCHURZHINSKAYA,  
A.B., tekhn. red.

[Operational organization of main gas pipelines] Organizatsiya

USSR/Farm Animals - Poultry

9

Abs Jour : Ref Zhur- Biol., No 15, 1958, 69415

Author : Kotlyar, Kh.R.

Inst : -

Title : Utilization of Hydrolytic Yeast in Poultry Rations

Orig Pub : S. kh. Povol'zhya, 1957, No 11, 38-41

Abstract : The chemical composition of hydrolytic yeast (in %) is as follows: water 12.47, cellulose 8.73, albumin 30.78, protein 38.62, ash 8.4, fat 1.24 and nonnitrogenous extractive substances 30.54. The albumin of the ration can be replaced by hydrolytic yeast up to 25-40%.

Card 1/1

KOTLYAR, Kh. R.

Cand Agr Sci - (diss) "Feed hydrolyzed yeasts as substitutes for animal feeds, and vitamin "D" in rations of chickens under conditions of the Volga Region." Saratov, 1961. 23 pp; (Ministry of Agriculture RSFSR, Saratov State Zootechnical-Veterinary Inst); 200 copies; free; (KL, 10-61 sup, 221)

POLYMER, S.I., KOWLYER, K.T., FRONDE, N.F.

Boots and Shoes - Trade and Manufacture

Apparatus for determining the activity of a  
solvent for granitol. Leg. prom. 12 no. 4:33-34  
Ap '52.

Monthly List of Russian Accessions, Library of  
Congress, July 1952. Unclassified

KOTLYAR, L., kandidat tekhnicheskikh nauk.

"Manual for students of milling industry technology." L.E.Aizikovich.  
Reviewed by L.Kotliar. Muk.-elev.prom.21 no.1:30 Ja '55. (MIRA 8:5)

1. Odesskiy tekhnologicheskii institut im. I.V.Stalina.  
(Grain milling) (Aizikovich, L.E.)

KOTLYAR, L.

~~XXXXXXXXXXXXXXXXXXXX~~  
Methods for scheduled preventive maintenance on equipment. Kuk.-elev.  
prom. 21 no.5:30 My '55. (MIRA 8:9)

1. Odesskiy tekhnologicheskii institut imen. I.V. Stalina.  
(Grain-milling machinery)

KESTEL'MAN, H., kandidat tekhnicheskikh nauk; KOTLYAR, L., kandidat tekhnicheskikh nauk.

Experimental studies on milling corn meal. Muk.-slov.prem. 21 no.11:  
13-15 N '55. (MIRA 9:4)

1.Odesskiy tekhnologicheskiy institut imeni I.V.Stalina.  
(Corn milling)



KOTLYAR, L., kandidat tekhnicheskikh nauk.

~~Studying~~ technological properties of grain. Muk.-elev.prom. 22  
no.4:22-24 Ap '56. (MLRA 9:8)

1. Odesskiy tekhnologicheskii institut imeni I.V. Stalina.  
(Grain)

KOTLYAR, L.

GAL'PERIN, G., kandidat tekhnicheskikh nauk; KOTLYAR, L., kandidat tekhnicheskikh nauk.

Design of separators for drying and cleaning towers. Muk.-elev.  
prom. 23 no. 3: 3-5 Mr '57. (MLRA 10:5)

1. Odesskiy tekhnologicheskii institut im. I.V. Stalina.  
(Separators (Machines))

PANCHENKO, A.V.; OSTAPCHUK, N.V.; KOTLYAR, L.I.

Effect of the load volume of the roll mill on the intensity  
of grain crushing. Izv.vys.ucheb.zav.; pishch.tekh. no.4:  
117-123 '59. (MIRA 13:2)

1. Odesskiy tekhnologicheskii institut imeni I.V.Stalina.  
Kafedra tekhnologicheskogo oborudovaniya.  
(Grain-milling machinery)

TSORFAS, S., inzh.; KOTLYAR, L., kand.tekhn.nauk; KESTEL'MAN, N., kand.tekhn.  
nauk

For more extensive introduction of the preventive maintenance of  
machinery and equipment. Muk-elev.prom. 25 no.1:14-17 Ja '59.  
(MIRA 12:3)

1. Odeskiiy tekhnologicheskii institut imeni I.V. Stalina.  
(Grain-milling machinery--Maintenance and repair)

TSORFAS, S., inzh.; KOTLYAR, L., kand.tekhn.nauk

Methods of determining the productive capacity of grain-milling enterprises. Muk.-elev.prom. 26 no.7:23-25 J1 '60.

(MIRA 13:8)

(Flour mills)

DUDAREV, I.R.; KALISHEVICH, I.V.; KOTLYAR, L.I.

Technological investigations of huskers of moist wheat. Izv.vys.  
ucheb.zav.;pishch.tekh. 1:71-79 '61. (MIRA 14:3)

1. Odesskiy tekhnologicheskii institut imeni I.V. Stalina,  
Kafedra tekhnologicheskogo oborudovaniya i kafedra tekhnologii  
mukomol'no-krupyanogo i kombikormovogo proizvodstva.  
(Mills and mill-work)  
(Wheat)

GAL'PERIN, G.D.; KOTLYAR, L.I.

Intensification of the grain milling process in a roller mill.  
Izv. vys. ucheb. zav.; pishch. tekhn. no. 2:88-98 '61.

(MIRA 14:5)

1. Odesskiy tekhnologicheskii institut imeni I.V. Stalina.  
Kafedra tekhnologicheskogo oborudovaniya.  
(Grain milling)

KESTEL'MAN, N.Ya.; KOTLYAR, L.I.

Expediency of using capron in the trieur disk manufacture. Izv.  
vys. ucheb. zav.; pishch. tekhn., no. 2:108-113 '61. (MIRA 14:5)

1. Odesskiy tekhnologicheskii institut imeni I.V. Stalina.  
Kafedra tekhnologii metallo i Kafedra tekhnologicheskogo  
oborudovaniya.

(Grain-handling machinery)  
(Nylon)



DEMIDOV, P. G.; KOTLIAR, L. I.

"Pneumatic conveying in grain processing plants" by A. M.  
Dziadzio. Reviewed by P. G. Demidov, L. I. Kotliar. Izv. vys.  
ucheb. zav.; pishch. tekhn. no.5:153-154 '62.  
(MIRA 15:10)

(Pneumatic conveying) (Grain handling)  
(Dziadzio, A. M.)

SOKOLOV, Aleksandr Yakovlevich, doktor tekhn. nauk, prof.;  
ZHISLIN, Ya.M., kand. tekhn. nauk; KOTLYAR, L.I.,  
kand. tekhn. nauk; GINZBURG, M.Ye., kand. tekhn. nauk;  
FURER, G.L.; PARFENOV, K.A., kand. tekhn. nauk; RYZHOVA,  
L.P., inzh., red. izd-va; MODEL', B.I., tekhn. red.

[Machines for processing grain] Mashiny dlia pererabotki  
zerna. Moskva, Mashgiz, 1963. 346 p. (MIRA 16:6)

1. Glavnyy instruktor zavoda im. F.E.Dzerzhinskogo (for  
Furer).

(Grain--Handling machinery)

GEORGI, N.V.; DUDAREV, I.R.; KOTLYAR, L.I.

Effect of ultrasonic waves on the resistance to impact of wheat grains during washing with water. Izv. vys. ucheb. zav.; pishch. tekhn. no.2:55-63 '63. (MIFA 16:5)

1. Odesskiy tekhnologicheskii institut imeni Lomonosova, kafedra tekhnologicheskogo oborudovaniya.

(Grain—Cleaning) (Wheat—Testing)  
(Ultrasonic waves—Industrial applications)

KOTLYAR, L.I.; GAL'PERIN, G.D.; DUDAREV, I.R.; LEVIN, S.M.

Grain-processing machinery. Izv.vys.ucheb.zav.; pishch.tekh.  
no.1:171-172 '64. (MIRA 17:4)

KOTLYAR, Leon Iosifovich; KESTEL'MAN, Nusya Yakovlevich; OSTAPCHUK, Nikolay Vasil'yevich; VAYNBERG, Anton Antonovich; DENISENKOVA, L.M., red.; SOKOLOV, A.Ya., prof., doktor tekhn. nauk, red.

[Design and operation of sieves in screening machines] Konstruktsiia i ekspluatatsiia sit proseivaiushchikh mashin.  
Moskva, 1963. 130 p. (MIRA 17:7)

ACC NR: AP6035916 (N) SOURCE CODE: UR/0413/66/000/020/0159/0159

INVENTOR: Georgi, N. V.; Kotlyar, L. I.; Soldatenko, L. S.

ORG: None

TITLE: A hydrodynamic plate emitter of ultrasonic waves. Class 42, No. 187424 [announced by the Odessa Technological Institute im. Lomonosov (Odesskiy tekhnologicheskii institut)]

SOURCE: Izobreteniya, promyshlennyye obraztzy, tovarnyye znaki, no. 20, 1966, 159

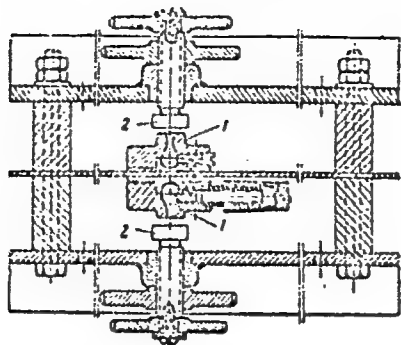
TOPIC TAGS: ultrasonic emitter, hydrodynamics

ABSTRACT: This Author's Certificate introduces a hydrodynamic plate emitter of ultrasonic waves. The unit contains a controllable resonating plate and nozzles fastened in a common frame. The power of the ultrasonic field is increased by rigidly fastening two conoidal nozzles on both sides of the resonating plate. Opposite the outlet apertures of the nozzles are reflecting discs which are moved through a fixed distance.

Card 1/2

UDC: 534.232.532.5

ACC NR: AP6035916



1—nozzles; 2—disc reflectors

SUB CODE: 20/ SUBM DATE: 05Oct64

Card 2/2

3.12/10

S/035/60/000/007/009/018  
A001/A001

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1960, No. 7,  
p. 61, # 6328

AUTHOR: Kotlyar, L.M.

TITLE: A New Solar Magnetograph of the Main Astronomical Observatory  
AS USSR

PERIODICAL: Astron. tsirkulyar, 1958, iyunya 18, No. 203, pp. 5-7

TEXT: A solar magnetograph of the Pulkovo Observatory is described which  
was put into operation in 1958. The optical diagram (see Figure 1) of the instru-  
ment and the block-diagram of its electronic part (see Figure 2) are presented.

(Figures 1 and 2)

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1



22381

S/035/61/000/005/014/042  
A001/A101

3,1540

AUTHOR: Kotlyar, L.M.

TITLE: The solar magnetograph of the Main Astronomical Observatory AS USSR.  
Part I

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 5, 1961. 50-51,  
abstract 5A338 ("Izv. Gl. astron. observ. v Pulkove", 1960, v. 21,  
no. 4, 73 - 87, Engl. summary)

TEXT: The author describes the design of the solar magnetograph operating according to Babcock's principle. The magnetograph works in combination with the great diffraction spectrograph mounted on the horizontal solar telescope at Pulkovo. To assure the accuracy of attaching the measured magnetic fields to the corresponding points on the Sun's surface, the author constructed a simple guide plotting the auxiliary image of the Sun on a control screen with a coordinate network. A specific feature of the construction described consists in that a special "splitting" prism divides the profile of the spectral line which is being measured for Zeeman splitting, into two parts (a part of the profile is not lost when using this prism, as is the case with the two-slit system). The light from the right

Card 1/3

22381

S/035/61/000/005/014/042  
A001/A101

The solar magnetograph ...

and the left wings of the line is incident on two photoelectronic multipliers. A crystalline electric optical light modulator (modulation frequency is 400 cps) is placed in front of the input slit of the spectrograph; the modulator quenches alternately the left and right components of splitting (circular polarization of these components in opposite senses is used). This leads to the alternate increase of the light flux to one photomultiplier and decrease to the other. In photocurrents of the photomultipliers appears a variable component of modulation frequency the magnitude of which is, within some limits, proportional to splitting. This variable signal is supplied to the amplifier of photocurrents the first stage of which functions as a differential cathode follower; in this stage the useful signal caused by the line splitting is doubled and the effect of simultaneous changes in intensity of both components is eliminated. After selective amplification the signal is detected by a phase detector and recorded by a self-recording device. In distinction from the Babcock device, an automatic compensation of Doppler displacements of spectral lines takes place in this instrument. A Doppler line displacement leads to a change in the constant components of photocurrents of the photomultiplier. The signal originated when the equality of photocurrent constant components in the differential amplifier circuit is violated, controls the system of automatic displacement compensation. A potentiometric turning angle transducer

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The solar magnetograph ...

S/035/61/000/005/014/042  
A001/A101

of this plate permits the recording of angles and thereby the determination of radial velocities in the studied sections of the solar surface. The shift of the solar image along the spectrograph input slit makes it possible to record the distribution of magnitude and polarity of the magnetic field over the solar surface. Recording is made by means of electronic potentiometers of the  $\text{ЭПН-09}$  (EPP-09) type. The magnetograph records without distortions magnetic fields which do not exceed the magnitude inducing splitting of a line amounting approximately to its width. All units of the device are described in detail (their schematic diagrams are presented), as well as the sequence of adjustment and calibration of the instrument and the observational procedure. The magnetograph can measure magnetic fields with a strength  $\geq 1$  gauss (noise level not exceeding 0.1 gauss). Preliminary results of observations are given. There are 12 references.

I. Zhulin

[Abstracter's note: Complete translation]

Card 3/3

81839

3.1240

S/033/60/037/03/008/027  
E032/E314

AUTHOR: Kotlyar, L.M.

TITLE: A New Differential Photometer for a Solar Magnetograph

PERIODICAL: Astronomicheskii zhurnal, 1960, Vol 37, Nr 3,  
pp 469 - 475 (USSR)

ABSTRACT: The differential photometer described in the present paper differs from the existing photometers in that only one photomultiplier is used instead of two. There is also auxiliary modulation of the light beam by means of an electro-optical crystal modulator. The photometer is shown diagrammatically and schematically in Figure 1, in which  $\mathcal{N}$  is the light source,  $\Pi_1$  and  $\Pi_2$  are polaroids, KM is the electro-optical crystal modulator,  $\mathcal{P}\mathcal{N}$  is the beam splitter followed by two  $\lambda/4$  plates,  $\mathcal{L}$  is the lens and  $\mathcal{P}\mathcal{M}\mathcal{Y}$  is the photomultiplier. The light from the source  $\mathcal{N}$  becomes linearly polarised on passing through the first polaroid. It is then converted into circularly polarised light by the electro-optical phase-shifting plate of the crystal modulator KM. The latter is in the form of a plane parallel plate cut from an  $\text{NH}_4\text{H}_2\text{PO}_4$  crystal in the direction perpendicular to the

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81839

S/033/60/037/03/008/027

EQ32/E314

A New Differential Photometer for a Solar Magnetograph

Z axis. This plate is placed between two transparent electrodes. Under the action of an electric field such a plate assumes the properties of a biaxial crystal and produces a phase shift between the ordinary and the extraordinary rays. This shift is proportional to the applied voltage but is independent of the plate thickness. Thus, by exciting the crystal modulator with a suitable alternating voltage, the linearly polarised light can be converted into circularly polarised. The frequency of rotation of the plane of polarisation is equal to the frequency of the exciting voltage. The circularly polarised beam is split into two by the beam splitter and the two beams are then compared. Each of the two beams passes through its own  $\lambda/4$  plate and then through a common polaroid. The two beams are then brought together by the lens at a point on the photocathode of the photomultiplier. The axes of the  $\lambda/4$  plates are at  $\pm 45^\circ$  to the axis of the second polaroid and the corresponding axes of the  $\lambda/4$  plates are at rightangles. In this way, the  $\lambda/4$  plates transform the circularly polarised light into linearly polarised and whatever the direction

Card2/4

81839

S/033/60/037/03/008/027

E032/E314

A New Differential Photometer for a Solar Magnetograph

of the circular polarisation one of the  $\lambda/4$  plates gives linearly polarised light in the direction coinciding with the axis of the second polaroid while the other  $\lambda/4$  plate gives linearly polarised light in the perpendicular direction. The two beams are alternately brought onto the photo cathode during successive half-periods of the exciting voltage. It is shown that the intensity of light transmitted along one of the paths is given by Eq (21). The parameters of the instrument were chosen so that the intensity could be described by Eq (24). This expression is plotted in Figure 3 for each of the two paths. It is shown that if the intensities along the two paths are equal then the photomultiplier current is constant. If they are unequal then an alternating component appears whose amplitude is equal to the difference between the two intensities just after the beam splitter. A differential photometer based on this scheme was built into the new solar magnetograph at the Main Astronomical Observatory of the Ac.Sc., USSR (autumn, 1959). The magnetograph will be described in a separate paper.

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64930

S/033/60/037/005/013/024  
E032/E514

9.4160 (3201, 1105, 1137)

AUTHOR:

Kotlyar, L.M.

TITLE:

A Recording Microphotometer with Automatic Transformation of Photographic Density into the Corresponding Intensities

PERIODICAL:

Astronomicheskii zhurnal, 1960, Vol.37, No.5, pp.888-896

TEXT:

The instrument is designed to transform automatically photographic densities into corresponding intensities or logarithms of intensities in accordance with the characteristic curve of the negative. It is based on the MΦ-2 (MF-2) microphotometer in which the selenium photocell was replaced by the ФЭУ-20 (FEU-20) photomultiplier. An electrical motor was also included for displacing the carriage of the photometer. This modification of the MF-2 microphotometer was described by L. A. Kamionko and L. M. Kotlyar in Ref.10. The photocurrents were recorded with the aid of the pen recorder ЭПП B-51 (EPPV-51). This instrument is an electronic automatic compensator designed for measuring very small currents from high impedance sources (Ref.11). Its principle is as follows. The principal part of this instrument is a precision rheochord which is such that its resistance per unit length is as constant as

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S/033/60/037/005/013/024  
E032/E514

A Recording Microphotometer with Automatic Transformation of Photographic Density into the Corresponding Intensities

possible. The slide of the rheochord is connected to the pen and is brought into motion by a servomotor controlled by an amplifier. The current flowing through the rheochord is 5 mA and the voltage drop across it is 400 mV. A fraction of this voltage taken from the slide is used to back off the voltage drop produced by the current to be measured across one of the high input resistances of the instrument. The difference between these two voltages is fed into the input of the amplifier and the amplified difference brings into motion the servomotor which moves the slide until the two voltages become equal. As soon as the difference is zero, the motor comes to rest. At the same time the pen records the magnitude of the current through the high resistance. Since the voltage distribution along the rheochord is linear, the scale of the instrument is also linear. In order to convert this instrument into a functional convertor, which transforms the measured quantity in accordance with a pre-determined law, the voltage distribution along the rheochord must follow the appropriate law. In the present instrument this was

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S/033/60/037/005/013/024  
E032/E514

A Recording Microphotometer with Automatic Transformation of Photographic Density into the Corresponding Intensities

done by replacing the characteristic curve of the negative by a series of short linear segments and the voltage distribution along the rheochord was arranged accordingly. The resistances of the rheochord sections are in fact variable (the total number of sections is about 20) so that any law can be set up on the rheochord. Typical spectra obtained with this device are shown in Fig.5. The curve on the left shows a direct transmission curve, whilst the curve on the right shows the transform of the curve obtained with the aid of this instrument. The basic circuit of the device is shown in Fig.2 and a general photograph in Fig.3. There are 5 figures and 11 references: 3 Soviet, 1 German, 1 Italian and 6 English.

ASSOCIATION: Glavnaya astronomicheskaya observatoriya Akademii nauk SSSR (Main Astronomical Observatory of the Academy of Sciences USSR)

SUBMITTED: December 2, 1959

Card 3/3



3,1540

S/035/61/000/009/029/036  
A001/A101

AUTHOR: Kotlyar, L.M.

TITLE: The solar magnetograph of the Main Astronomical Observatory, AS  
USSR

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 9, 1961, 56, ab-  
stract 9A503 ("Izv. Gl. astron. observ. v Pulkove", 1961, v. 22,  
no. 2, 95 - 107, Engl. summary)

TEXT: The author describes in detail the magnetograph the brief descrip-  
tion of which was published previously (see RZhAstr, 1961, 5A338). There are 6  
references.

[Abstracter's note: Complete translation]

Card 1/1

VB

KOTLYAR, L.M.

Some improvements of the solar magnetograph of the Main  
Astronomical Observatory of the Academy of Sciences of the  
U.S.S.R. Izv. GAO 22 no.4:52-57 '61. (MIRA 14:10)  
(Spectroheliograph)

S/757/61/022/002/004/007  
E032/E114

AUTHOR: Kotlyar, L.M.

TITLE: The solar magnetograph of the Main Astronomical  
Observatory of the AS USSR. II.

SOURCE: Pulkovo. Astronomicheskaya observatoriya. Izvestiya.  
v.22, no.2 (167). 1961. 95-107

TEXT: The first part of this paper was published by the author  
in Izv. GAO (no.163, 1960).  
The original magnetograph was similar to that described by  
H.W. Babcock (Aph.J., v.110, 1949, 126; v.118, 1953, 387). It was  
found that the magnetograph suffered from a number of shortcomings,  
one of which was the use of two photomultipliers. This meant that  
the photomultiplier characteristics had to be closely matched.  
In the modified form now reported, there is only one photo-  
multiplier and the two light beams are compared by bringing them  
in turn onto the photo-cathode and using phase detection of the  
amplified photocurrent. The instrument incorporates electro-  
optical crystal modulators, whose action was considered in a  
previous paper (L.M. Kotlyar, AZh, v.37, no.3, 1960, 469).  
Card 1/4

The solar magnetograph of the ...

5/757/61/022/002/004/007  
E032/E114

The complete optical system of the spectrograph and solar magnetograph is shown in Fig.3, in which: 1 - spectrograph; 2 - collimating mirror; 3 - mirror; 4 - diffraction grating; 5 - entrance slit; 6 - plane mirror; 7 - magnetograph; 8 - plane mirror; 9 - radial velocity compensator; 10 - slit; 11 - objective; 12 - beam splitting prism; 13 - mica  $\lambda/4$  plates; 14 - polaroid; 15 - lens; 16 - photomultiplier; 17 - modulator; 18 - first crystal modulator (400 cps); 19 - polaroid; 20 - second crystal modulator (4.7 kc/sec);  $\Phi$  - light filter separating spectral orders.

There is provision for automatic sensitivity control, ensuring constant sensitivity at different extinction, luminance of solar details, height of entrance slit of spectrograph, and so on. The sensitivity remains constant for light flux changes by a factor of up to 10. Basic circuits of the auxiliary electronics are reproduced and the calibration procedure is outlined. The magnetograph was brought into operation in the summer of 1959. At present the  $\Phi 3Y-17$  (FEU-17) photomultiplier is used as the final detector, giving a noise level of 1 - 3% for a 1 mm long

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The solar magnetograph of the ...

S/797/61/022/002/004/007  
E032/E114

entrance slit. . This limits the scanning rate. In order to  
increase the scanning rate, photomultipliers with lower noise level  
will have to be used. ✓  
There are 11 figures.

SUBMITTED: April 1960

Card 3/4

KOTLYAR, L. M.

Solar magnetograph of the Pulkovo Observatory. Part 2. Izv.  
GAO 22 no.2:95-107 '61. (MIRA 15:10)

(Pulkovo Observatory) (Heliograph)

KOTLYAR, L.M.

Using automatic potentiometers as functional converters.  
Priborostroenie no.5:29-30 My '63. (MIRA 16:8)

L 04247-67 EWT(1) GW

ACC NR: AR6004668

SOURCE CODE: UR/0269/65/000/010/0040/0041

AUTHOR: Kotlyar, L. M.

TITLE: Problem of measuring the total magnetic field intensity vector with a solar magnetograph

SOURCE: Ref. zh. Astronomiya, Abs. 10.51.304

REF SOURCE: Solnechnyye dannyye, no. 10, 1964(1965), 66-73

TOPIC TAGS: solar magnetic field, light polarization, photomultiplier

ABSTRACT: A technique developed at GAO AN SSSR for measuring the total magnetic field vector on the <sup>2</sup>Sun is described. A rotating half-wave plate is mounted in front of the circular polarization analyzer (ADP crystal and polaroid) used in the longitudinal field magnetograph. Measurement of the field signal is produced, as usual, according to two portions of the wings symmetrically placed relative to the line center, the radiation being incident on two photomultipliers. The photomultiplier output signals are fed to two channels. A unit subtracting the two PM signals is placed at the input of the second channel. Analysis of the conversion of elliptically polarized light with passage through the polarization analyzer shows that at the output of the subtracting unit a variable signal is formed, its frequency equaling the frequency of the voltage supplied to the ADP crystal ( $\Omega$ ). This signal is proportional within definite limits to the magnitude of the longitudinal field component. Thus, the first channel is the

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UDC: 522.56



1. 04247-67

ACC NR: AR6004668

ordinary channel for measuring the longitudinal component ( $H_z$ ). Besides the subtraction unit, an amplifier at the frequency  $\Omega$ , a synchronous detector ( $D\Omega$ ), and a recorder are used. The signal at the output of the addition unit is proportional to the magnitude  $i_+$  described by the formula  $i_+ = 1/6(a^2 - b^2) \sin(4vt + \beta) + 0.1(a^2 - b^2) [\sin[(2\Omega + 4v)t + \beta] - \sin[(2\Omega - 4v)t - \beta]]$ , where  $a$  and  $b$  are the amplitudes of the two orthogonal vibration components polarized along the axes of the polarization ellipse of the radiation,  $v$  is the frequency of rotation of the half-wave plate, and the phase angle  $\beta$  is a function of the azimuth of the  $H$  vector projection on the figure plane. All the necessary information relative to the transverse component of the magnetic field vector is contained in the output signal  $i_+$ . To determine the parameters of the transverse field, the second channel contains a phase-measuring unit measuring the phase angle  $\beta$ , an azimuth recorder recording the measured value of the angle  $\beta$ , an amplifier at the frequency  $2\Omega$ , a synchronous detector at this frequency, a square law detector, and an  $H_z$  signal recorder. The reference signal to the phase-measuring unit is supplied from a reference signal detector coupled with the rotating half-wave plate. The described circuit allows the recording of the total vector components in the separate channels, which can simplify the utilization of the obtained data. Bibliography of 10 citations. B. Ioshpa /Translation of abstract/

SUB CODE: 03,20

Card 2/2 EV

KOTLYAR, L.Ye.

MANOLE, M.G.; ANDRIANOV, B.A.; KOTLIAR, L.Ye.; ROZENFEL'D, M.N.;  
SADETSKIY, A.A.; FINKEL'SHTEYN, Ya.M.

[Russian Rumanian technical dictionary] Russko-rymynskii politekhnicheskii slovar'. Sostavili B.A.Andriakov [i.dr.] Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1953. 820 p. (MLRA 7:3)  
(Russian language--Dictionaries--Rumanian)  
(Technology--Dictionaries)

ANDRIANOV, B.A.; KOTLYAR, L.Ye.; MANOLE, M.G.; ROZENFEL'D, M.N.; SADETSKIY,  
A.A.; FINKEL'SHTAYN, Ye.M.; LEPESHINSKAYA, Ye.V., redaktor; TUMCHIKINA,  
N.A., tekhnicheskiy redaktor

[Rumanian-Russian polytechnical dictionary] Rumynsko-russkii poli-  
tekhnicheskii slovar'. Sost. B.A.Andrianov i dr. Pod red. M.G.  
Manole. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 715 p.  
(MLRA 10:3)

(Rumanian language--Dictionaries--Russian)  
(Technology--Dictionaries)

KOTLYAR, Lev Yevseyevich; MANOLE, H.G., red.; BRUDNO, K.F., tekhn.red.

[Russian-Rumanian agricultural dictionary] Russko-rumynskii sel'skokhoziaistvennyy slovar'. Moskva, Glav.red.inostr.nauchno-tekhn.slovarei Fizmatgiza, 1960. 456 p.

(MIRA 14:2)

(Russian language--Dictionaries--Rumanian)  
(Agriculture--Dictionaries)

KOTLYAR, L. Z.

DECEASED

ENC'

see ILC

KOTLYAR, M. A.

KOTLYAR, M. A.: "Plasma therapy in the complex treatment of patients with suppurative inflammatory diseases". Khar'kov, 1955. Khar'kov Medical Inst. (Dissertations for the Degree of Candidate of Medical Sciences)

SO: Knizhnaya letopis', No. 52, 24 December, 1955. Moscow.

KOTLYAR, M.A., mladshiy nauchnyy sotrudnik

Role of plasmatherapy in the combined treatment of suppurative and  
infectious diseases. Vop.pereb.krovi 4:133-144 '55. (MLRA 9:12)  
(BLOOD PLASMA) (COMMUNICABLE DISEASES)

KOZYR', P.T., kandidat biologicheskikh nauk; KOTLYAR, M.A., nauchnyy sotrudnik

Changes in the opsonic index and complement titer in suppurative  
infections under the effect of plasmotherapy. Vop.persl.krovi 4:  
155-164 '55.

(MLBA 9:12)

(BLOOD PLASMA)

(OPSONINS AND OPSONIC INDEX)

(COMPLEMENTS (IMMUNITY)

(SUPPURATION)



AID P - 3813

Subject : USSR/Mining

Card 1/1 Pub. 78 - 1/25

Authors : Karyagin, I. D., L. M. Tomashpol'skiy and M. D. Kotlyar

Title : The question of planning the organization of drilling work production. (In the order of discussion)

Periodical : Neft. khoz., v. 33, #11, 1-10, N 1955

Abstract : The authors analyse different phases relating to the well drilling works and indicate shortcomings and lack of proper coordination, planning and organization. This article is one among many published in this journal in a general discussion on the subject of achieving better efficiency in drilling works through better planning, organization, adoption of more modern equipment and technical methods, mechanization of work and automation.

Institution : Central Bureau of Work Standards (TsBNT)

Submitted : No date

KARYAGIN, Ivan Dmitriyevich; TOMASHPOL'SKIY, Leonid Markovich; ~~KOTLYAR,~~  
Mikhail Davydovich; NURSHANOV, V.A., redaktor; MORGUNOVA, G.V.,  
vedushchiy redaktor; ERDENKO, V.S., tekhnicheskiy redaktor

[Planning over-all organization of boring work] Proektirovanie  
kompleksnoi organizatsii burovykh rabot. Moskva, Gos. nauchno-  
tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1956. 99 p.  
(Oil well drilling) (MIRA 9:12)

KOTLYAR, Mikhail Davydovich; ALEKSANDROV, Mark Aleksandrovich; ISAYEVA,  
V.V., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Drilling practices of the progressive Al'met'yevsk Oil Well  
Drilling Trust] Opyt raboty peredovogo tresta Al'met'evburneft'.  
Moskva, Gos.nauchno-tekhn.izd-vo نفت. i gorno-toplivnoi lit-ry,  
1959. 52 p. (MIRA 13:11)  
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KOTLYAR-M.L.

✓ The chemical treatment of soil to reduce ground cover in reforestation areas. M. L. Kotlyar. *Leningradsk. gos. univ. izv.* 1954, 49-52(1954). -- Potash-type soil in reforestation areas was treated with  $KClO_4$  to reduce ground cover which would choke out the tree seedlings. In September the grass was removed from six test plots (2 m. in diam. and 825 test plots per hectare) with  $KClO_4$  at a dosage of 120 kg. per hectare. In May of the following year pine, spruce, and larch seedlings were planted, 8 in the center of each plot and 7 at a distance of 45 cm. from the center. In the control areas the turf was removed but the soil was not treated. Two years after treatment, the nitrate content of the treated soil was 75% higher and the humus content double; the pine, spruce, and larch seedlings were 23, 14, and 17% higher 2 years after planting, and 53, 55, and 21% higher 4 years after planting. John Lake Keays

KOTLYAR, M.Ye., inzh.; SHTEYNDORF, Yu.Ye., inzh.

Straightening of large-size metal structures with a special hydraulic  
press. Svar. proizvod. no.3:35-36 Mr '65. (MIRA 18:5)

1. Novosibirskiy zavod tyazhelykh stankov i krupnykh gidroressov  
im. A.I.Yefimova.

BLEKHMAN, I.Ye., inzh.; KOTLYAR, N.L.

Stretching reinforcements by electrothermal methods in making  
ceiling beams. Prom. stroi. 38 no.5:44-47 '60. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii  
i tekhnicheskoy pomoshchi stroitel'stvu.  
(Girders) (Prestressed concrete)

Principal rules for the working up of the pebble-like  
and oxidized ores from the mountain Magnitnaya. *N.*  
*N. Kottlyar*. Inst. Mekhanicheskoi Obrabotki Pechenitsk  
*Likopodskina*. Mekhanobr (Inst. Mech. Treatment Ores).  
Concn. and Agglomeration of Iron Ores in U. S. S. R.  
1932, 121-31. --This ore consists of (a) pebble ore, (b)  
principal oxidized ore, and (c) primary ore. Various  
possibilities for its concn. and utilization are suggested.  
A. A. Boettingke

**Commercial and technical prospects for the utilization of iron ores of the Telibess district.** N. N. Knyazev, *Instit. Mekhanicheskoi Obrabotki Pochvami i Gornymi Massami* (Inst. Mech. Treatment Ores), *Consp. Iron Ores of Maganayna Mt. and Telibess Dist. Ural-Kavkaz. Collection No. 1, 26-36 (1932).*—The ore contains  $\text{SiO}_2$  12-23.8,  $\text{Al}_2\text{O}_3$  4.0-12.0,  $\text{Fe}$  33-50,  $\text{S}$  0.1-2.5,  $\text{P}$  0.02-0.10, As traces to 0.02 and Zn 0.1 (0.80%). It is a magnetite found in pockets of gangue. It can be conc'd. up to 64.51% of Fe. A. A. H.



1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX										3RD AND 4TH ORDERS									
<p>CA</p> <p>18</p> <p>Concentrating magnesite from the Sathin deposit. N. N. KOTLYAR. <i>Gornoe Obozreteniye</i> (1932, No. 9, 22-6) - Conc'n. of Sathin magnesite by the hand-picking method is discussed.</p> <p>S. L. MADARSKY</p>																													
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																													

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illus.

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Mechanical classifiers (screens and separators)

DLC: TN515.K6

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of  
Congress, 1953

KORSHUNOV, Ye.S., inzh.; KOTLYAR, O.M., inzh.

Air-friction ~~bit~~-feeding mechanism. Trudy Giprocneftemasha.  
Nefteprom.delo no.1:37-44 '61. (MIRA 15:8)  
(Oil well drilling--Equipment and supplies)

*KOTLYAR, O.N.,*

RENNE, V.T., professor; KOTLYAR, O.N., inzhener; ANDREYEVA, M.A.,  
inzhener.

Effect of iron and copper content in condenser paper upon the quality of condensers. Sum.pron. 29 no.8:18-19 Ag '54. (MLRA 7:9)  
(Paper) (Condensers (Electricity))

AUTHORS: Kagan, V.G., and Kotlyar, P.E. Z/019/61/018/012/001/004  
D006/D102

TITLE: Electronic device for signalling the saturation of air  
with mercury vapors

PERIODICAL: Přehled technické a hospodářské literatury, Energetika a  
elektrotechnika, v. 18, no. 12, 1961, 551, abstract # E 61-7599.  
Elektr. i. teplovoz., Tyaga 5, February 1961, no. 2, 13-14

TEXT: The device is used in converter stations with mercury rectifiers. It consists of a bridge to which are connected two photocells illuminated by an ultraviolet-light source. One of the photocells is located nearer to the light source than the other. If there are no mercury vapors in the air the bridge is balanced. In the presence of mercury the rays reaching the farther photocell are more shaded than those reaching the nearer one and the bridge becomes unbalanced. The signal is amplified and fed to a signalling or recording device. The original article contains 2 figures. [Abstracter's note: The above text is a full translation of the original Czech abstract.] ✓

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KOTLYAR, P. S.

How we organize a training installation. Voen.znan. 25 no.12:  
14-15 D '59. (MIRA 12:12)

1. Predsedatel' komiteta pervichnoy organizatsii zavoda im.  
Sergo Ordzhonikidze Tsentral'nogo komiteta Dobrovol'nogo  
obshchestva.  
(Moscow--Military education)

KOTLYAR, P.S., inzh.; GONOR, V.B., inzh.

Water conditions of low-capacity steam boilers. Bezop.truda v prom. 6  
no.8:13-15 Ag '62. (MIRA 16:4)

1. Upravleniye Kiyevskogo okruga Gosudarstvennogo komiteta pri Soveta  
Ministrov UkrSSR po nadzoru za bezopasnym vedeniyem rabot v promyshlen-  
nosti i gornomu nadzoru.

(Boilers)

KOTLYAR, P.S., inzh.

Operating units for electromagnetic treatment of water. Bezop.truda  
v prom. 4 no.11:27-29 N '60. (MIRA 13:11)

1. Upravleniye Kiyevskogo okruga Gosgortekhnadzora USSR.  
(Feed-water purification)